PAYMENT ISSUES IN TELECOMMUNICATION INFRASTRUCTURE PROJECT

SHEIKH MOHD SHAHRIEN BIN SHEIKH RAZMAN

A project report submitted in partial fulfillment of the
requirements for the award of the degree of
Master of Science (Construction Contract Management)

Faculty of Built Environment
Universiti Teknologi Malaysia

JUNE, 2017

To my mother, my wife, my siblings, family and friends

Thank you for your support, guidance and everything. May Allah Bless Us.

ACKNOWLEDGEMENTS

In the Name of Allah, the Most Gracious and the Most Merciful,

First and foremost, I would like to express my highest gratitude to my supervisor Dr. Maizon binti Hashim for her guidance, advice and support in completing this research paper.

Extended thanks are also to all lecturers; En. Jamaludin Yaakob, Dr. Norazam Othman, Dr. Zuhaili and Dr. Hamizah for their kind advice during the process of completing this paper.

Last but not least, thank you to all who have made this paper possible.

ABSTRACT

Payment is the core of any economic transaction. In construction, payment considered as the *'lifeblood'* of the industry. Payment is a monetary consideration and exchanged for the performance or work done. Payment issues in the construction industry is a global phenomenon and it is not new in construction industry. Payment issues will cause severe cash flow problems and *'domino effect'* on the entire construction value chain. As a subdivision in construction industry, telecommunication infrastructure project also facing the same issues relating to payment. The duration of the construction work is short but payment issues still occurred even though the works has been completed. The aim of this research is to assess the payment issues in telecommunication infrastructure project. The objectives were established to identify the causes, effects, remedies and action taken by the contractors in mitigating the payment issues. Data collected through questionnaire forms distributed to the employers and contractors, interview with expert opinions, contractors and analysis of the relevant documents. These data were analyzed using Percentage Frequency Distribution and Relative Important Index (RII). The RII for all the factors and group of categories was computed to rank the factors. Based on the findings, the parties have different views relating to the causes, effects, remedies in payment issues that leads to payment issues. Full Turnkey Contractors prefer to use negotiation approach during the event of payment defaults instead of other methods of alternative disputes resolution. Furthermore, negotiation was chosen as a solution most probably to maintain a *'good rapport'* to avoid being *'blacklisted'* by the employers and continuously received a new project by the employers. Surprisingly, the feedback received from the contractors that majority of them received the payment claims within the time stipulated in the contract. Hence, based on the feedback, further investigation has been made found out that the cause of the payment issues in telecommunication project is non-issuance of Purchase Order (PO) as condition precedent for the Contractors to submit payment claims to the employers.

ABSTRAK

Bayaran merupakan teras dalam apa jua transaksi ekonomi. Di dalam Industri Pembinaan, bayaran dianggap sebagai nadi utama. Ia merupakan pertukaran imbuhan kewangan ke atas perkhidmatan atau kerja yang dilakukan. Isu pembayaran dalam industri pembinaan adalah satu fenomena global dan ia bukanlah sesuatu yang baru. Isu pembayaran akan menyebabkan masalah aliran tunai yang meruncing dan memberi kesan *'domino effect'* kepada industri. Sebagai sub-sektor di dalam industri pembinaan, projek infrastruktur telekomunikasi juga menghadapi isu-isu yang sama berhubung masalah pembayaran. Walaupun tempoh pembinaan di dalam projek ini singkat, tetapi isu pembayaran masih timbul walaupun kerja pembinaan telah siap dilakukan. Tujuan kajian ini dilakukan adalah untuk mengenalpasti isu-isu pembayaran dalam projek pembinaan infrastruktur telekomunikasi. Objektif dibina bagi mengenal pasti punca, kesan, pemulihan dan tindakan yang diambil oleh kontraktor dalam menangani isu pembayaran. Data dikumpul melalui borang soal selidik dan diedarkan kepada majikan dan kontraktor, temubual bersama pakar, kontraktor dan melalui analisis dokumen yang berkaitan. Data ini dianalisis menggunakan *'Percentage Frequency Distribution'* dan *'Relative Important Index' (RII). RII* untuk semua faktor dikira dan diklasifikasikan untuk mengenalpasti kedudukan faktor. Hasil analisis mendapati semua pihak mempunyai pandangan yang berbeza berkaitan punca, kesan dan pemulihan dalam isu pembayaran. Kontraktor *'Full Turnkey'* lebih cenderung memilih kaedah rundingan berbanding kaedah alternatif penyelesaian yang lain apabila mengalami masalah kesukaran mendapatkan bayaran. Kaedah rundingan dipilih mungkin disebabkan oleh faktor ingin mengekalkan hubungan baik bagi mengelakkan dari disenarai hitam dan berterusan menerima projek baru daripada pihak majikan. Lebih mengejutkan, maklum balas yang diterima daripada kontraktor sebahagian besar daripada mereka memberi maklum balas bahawa mereka menerima tuntutan bayaran dalam tempoh yang ditetapkan seperti di dalam kontrak. Berdasarkan maklum balas yang diterima, kajian lanjutan dilakukan dan hasil mendapati bahawa punca sebenar isu pembayaran di dalam projek infrastruktur telekomunikasi adalah kelewatan mengemukakan *'Purchase Order'* yang mana merupakan syarat utama bagi kontraktor mengemukakan tuntutan pembayaran kepada majikan.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

2G	2nd Generation
3G	3rd Generation
4G	4th Generation
AFS	Antenna Feeder System
ASSR	Acquisition Site Survey Report
ATP	Acceptance Test Protocol
B2S	Build to Suit
BM	Building Management
BO	Building Owner
BQ	Bill of Quantity
BTS	Base Transceiver Station
CAPEX	Cost Expenditure
CIDB	Construction Industry Development Board
CIPAA	Construction Industry Payment and Adjudication Act
CMA	Communications and Multimedia Act
CMGD	Certificate of Making Good Defects
CPC	Certificate of Practical Completion
DO	Development Order
DOE	Director of Engineering Division
DOF	Director of Finance
FC	Final Claim
FTC	Full Turnkey Contractor
GBT	Ground Base Tower
GDP	Growth Domestic Product
JMB	Joint Management Body
JSS	Join Site Survey

KAM	Key Account Manager
LA	Local Authorities
LAD	Liquidated Ascertained Damages
LC	Local Council
LL	Landlord
LS	Land Survey
LTE	Long Term Evaluation
MSA	Master Service Agreement
NFP	Network Facilities Provider
NSB	New Site Built
NSO	Network Service Operator
NSP	Network Service Provider
PAM	Persatuan Arkitek Malaysia
PD	Project Director
PM	Project Manager
PR	Purchase Requisition
PWD	Public Word Department
RFAI	Ready for Active Service
RHC	Rules of High Court
RTT	Rooftop
SI	Soil Investigation
SLA	Service Level Agreement
SO	Superintendent Officer
SOR	Schedule of Rates
SOW	Scope of Work
TP	Technical Proposal
TSS	Technical Site Survey
TSSR	Technical Site Survey Report
WO	Work Order

CHAPTER 1

INTRODUCTION

1.1 Background of Research

The Malaysian Construction Industry is important sector and cogwheel in propelling the country economy. The Government has carried out various initiatives to spur the growth in the construction sector[1]. The construction industry contributes significantly to economic growth as 'key indicator' to move to other sectors of the economy. In 2010, the construction sector recorded a growth of 5.2 percent compared with 5.8 percent in 2009[2]. The industry itself had generated the value of RM18.2 billion that significantly helped to enhance other economic relationships and generate a multiplier impact on other economic sectors such as manufacturing services, transportation, insurance, banking and financial. The positive growth since 2007 was due to government and private investment continued mainly in non-residential and civil engineering[3].

Telecommunication's infrastructure is one of the non-residential and civil engineering categories. Technology developments in telecommunications such as

[1] Emy Lindsay, "Construction Industry a Significant Contributor to the Nation's GDP." (The Borneo Post, 30th May 2012).
[2] Ibid no 1
[3] Kementerian Kerja Raya, "Pelan Dwi Tahunan, Pelan Strategik 2011 – 2012."

broadband service, a system of wireless services and the development of mobile networks technology from 2G, 3G, 4G and Long-Term Evaluation (LTE) require telecommunications sites or base station to support the growing, needs and demands of mobile phone and internet usage in Malaysia. Statistics show that mobile phone subscribers are 31 million, more than the total population of 28 million[4].

In 2007, the communications sector contributed RM21.3 billion to the national economy, which is about 3.7 percent of total Gross Domestic Product (GDP) compared to RM15.3 billion, representing 3.1 percent in 2005. Given the large contribution to the growth of the telecommunications sector the national economy, it is clear that this sector is one of the important factors in contributing to the country's GDP[5].

As a subdivision in the construction industry, telecommunication infrastructure project nature involves the engagement of contractors or subcontractors by Network Facilities Provider (NFP) for the implementation of the telecommunication's infrastructure. One of the important agendas and the main concern to the parties involved in this industry is payment. Ameer-Ali (2006) stated that payment as the main of any economic transaction, without which any parties can succeed in a business. This is important in the construction industry because payment process normally takes a longer time, construction products are expensive and payment is made once the products and services completed.

According to Rahman and Ye (2010), payment is a monetary consideration and exchanged for the work done or performance by the other party, which refers to the contactor[6]. Payment has been defined as goods, materials or value of work encompassed in the sub-contract agreement in the case of *Royden (M) Sdn Bhd v*

---

[4] "31 Juta Pelanggan Telefon Bimbit." (Harian Metro, 29 Oktober 2010).
[5] Mohd Khuzairi Ismail, "Industri Telekomunikasi Kian Penting." (Utusan Malaysia,11 April 2008)
[6] Rahman, H. A., and Ye, K. M., "Risk of Late Payment in Malaysian Construction Industry." (World Academy of Science, Engineering and Technology, 2010),pp.41.

Syarikat Pembenaan Yeoh Tiong Lay Sdn Bhd[7]. The facts of the case that, payment is a monetary consideration for completion of work by the contractor according to the agreement with the employer. It is necessary for both parties to ensure that the detailed procedure as stated in the contract agreement is strictly applied to.

1.2 Problem Statement

According to Judi and Mohamed Sabli (2010) and Nik Mohd Dhiyafullah Nik Din and Zulhabri Ismail (2014), the payments problem encountered in the construction industry, for example, are late payment, non-payment or short payment[8]. Johnston (1999) stated that a survey has been done relating to the payment performance and shown that in particular, the construction industry is prone to a late payment culture. Payment issues will cause serious cash flow problems, especially among the contractors. Ameer Ali (2005) urges every party in this industry pays all suitable amounts due in a timely manner. According to *Abdul Rahman et al.* (2002), top management of construction companies in Malaysia confirmed that the main reason of payment issues is the financial problem, aside to the main power shortage issue.

According to Mohamed Nor Azhari Azman *et al.* (2014) if the contractors' failed to receive a timely and regular payment, can result in a delay in the project, reduced contractors' profitability and the worst scenario, contractors' may go into insolvency. Payment issues will create a *'domino effect'* on the entire construction industry value-chain. When clients did not pay the main contractors in timely manner, the supplier, sub-contractors, hirers and every party involves in the

[7] [1992]1 MLJ 33

[8] Nik Mohd Dhiyafullah Nik Din and Zulhabri Ismail, "Construction Industry Payment and Adjudication Act (CIPAA) Remedying Payment Issue: CIDB G7 Contractor's Perspective." (Universiti Teknologi Mara, 2014).

construction value chain will suffer the consequences (Nor Azhari Azman *et al.* 2013).

Many complained and expressed their concerns regarding the payment issue consist of non-payment and late-payment[9]. Non-payment can be defined as a failure to receive payment and not being paid accordingly subsequent claim while late payment is a failure by the client or employer to pay in a timely manner as specified in the contract[10]. According to Hasmori *et al.* (2012) payment issues has been a main issue in the construction industry and most of the contractors reported that they facing payment issues in government projects and the same situation occurred private projects.

Contractors in telecommunication project under also faced the same issue relating to payment. For instance, in Myanmar, The Myanmar Tower Constructors Association reported that they will take a legal action against the contractors of telecom tower if the non-payment issue prolongs[11]. The payment disputes are happening between the constructors and the companies who have licence to build telecom tower[12]. There are approximately 300 tower contractors in the country and estimated that each contractor is due to get $200,000.00 of payment amount[13]. The duration to construct the tower site will take only three to four weeks but yet, the contractors haven't got full payment since a year the site was completed[14].

The uniqueness of telecommunication infrastructure project is not similar with building construction that required a payment regime mainly because the period of construction is shorter than building construction. Even though it is a fast track

---

[9] A report of A Questionnaire Survey on Late and Non Payment Issues in the Malaysian Construction Industry

[10] Ibid no 10

[11] Tin Mg Oo, "MTCA Threatens to Sue Tower Contractors." (Myanmar Business Today, Vol. 3, Issue 41, 20th October 2015).

[12] Ibid no 11

[13] Ibid no 11

[14] Ibid no 11

project, the payment issues are still keep on continuing in this project. None of the payment issues in telecommunication infra project has been recorded or published and yet, no case law has been reported for the payment issues. Hence, this research is to identify the payment issues occurred in telecommunication tower construction and infra project.

1.3 Objectives of the Research

The objectives are as follows:

i. To determine the causes and effects of payment issues in telecommunication infrastructure project.

ii. To determine the remedies available and action taken by contractors in mitigating the payment issues in telecommunication infrastructure project.

1.4 Scope and Limitation of the Research

This research will be focused on the Network Facilities Providers (NFP), Network Service Providers (NSP) and Full Turnkey Contractors (FTC) involved in the construction of telecommunication infrastructure project consists of Built-to-Suit, Rooftop and Infra Sharing sites which involve from preliminary until completion of the project.

1.5 Significance of the Research

All parties in construction industry typically encounter the difficulties associated with payment issues. The area of this research would be beneficial to the parties in the construction industry focusing on telecommunication infrastructure project in providing awareness and better understanding to the contractors on their rights to payment

1.6 Brief Research Methodology

The selection of methods to be used for the research is important. The appropriate method will save time and produce a better result. Different methodological approaches will be described followed by a summary of approach chosen.

Stage 1: Initial Stage

This stage involves initial study and initial review, which was done to get the overview of the research. To get a better understanding and knowledge, discussions have been made between supervisors, lecturers and industry players. The objectives and scopes of the research will be established, research outline will be prepared and data required will be identified to streamlines with the aim and objectives of the research.

Stage 2: Data Collection

This stage involves collection of required data and information. Typically, two types sources of data required which are primary data and secondary data. All the gathered information will be recorded systematically for the purpose of the research.

Stage 3: Data Interpretation and Analysis

At this stage, all the gathered information and data, ideas, opinions and comments will be arranged, analyzed and interpreted. All gathered data will be converted into the information that is beneficial to the research. Then, the data will be arranged to streamline the process of writing the research.

Stage 4: Conclusion and Recommendation

This is the last stage of the research, which mainly involves checking and evaluating the research paper. The conclusion and recommendations will be made based on the outcomes and findings during the analysis stage which will be useful and benefit the parties involved in the project and also construction industry.

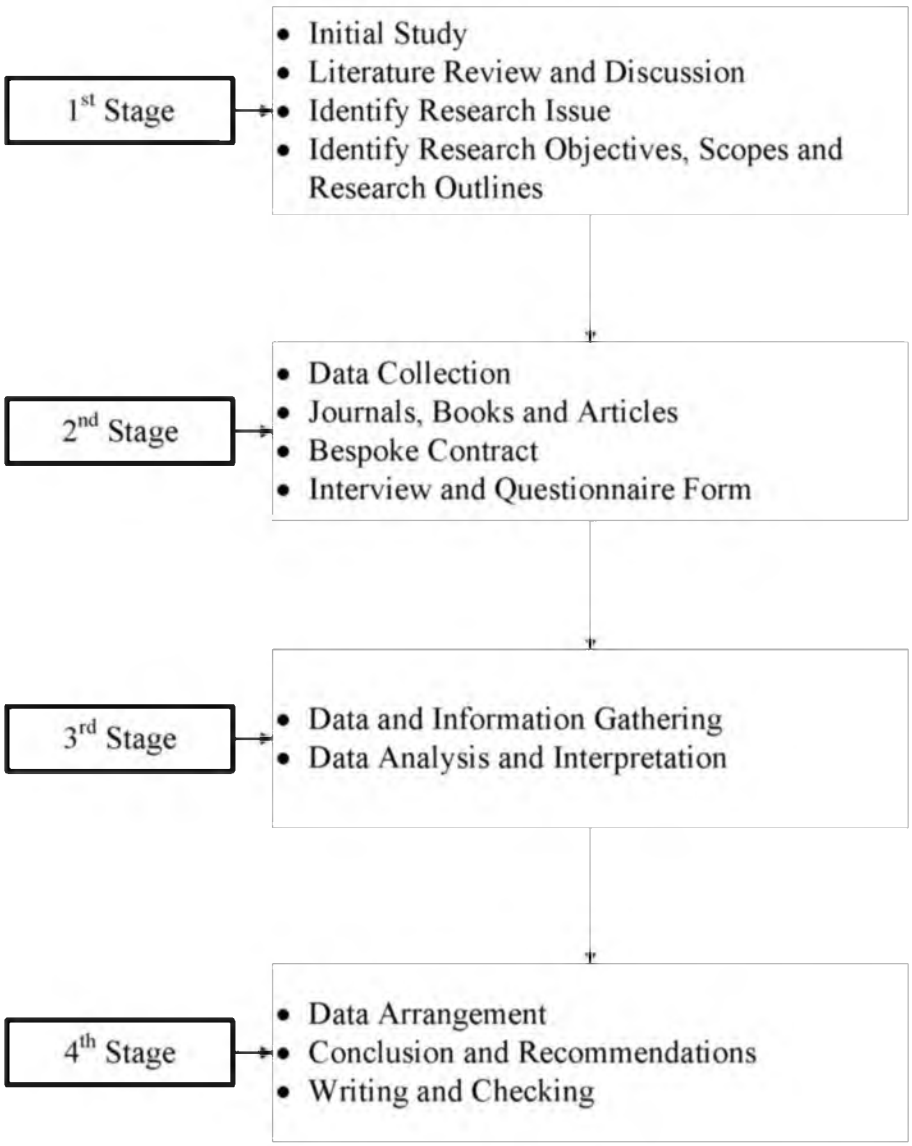

Figure 1.1: Brief Research Methodology Process

1.7 Organization of the Research

The research consists of five chapters. Chapter one is the introduction that represents the overall content of the research. It introduces the subject matter, the problem statement, objectives, scope and limitation, significance of the research, brief research methodology and organization of the research.

Chapter two gives an overview relating to payments in construction industry. It explains thoroughly the issue related to payment, causes of payment default, and effect of payment issues in construction. It also discusses about the contractors' right to be paid, the remedies and payment provision in the contract. The nature of telecommunication tower construction and infra project also been discussed to understand the overall and nature of telecommunication tower construction and infra project.

Chapter three describes the methodology used in this research. It is based on the needs, requirements and considerations of the researcher. All the information will be collected and gathered to achieve the mentioned objectives.

Chapter four is the analysis of data collected. All the results of the analysis will be presented as findings of the non-payment issue occurred in the telecommunication tower construction and infra project.

Chapter five is the conclusion of the research. It also provides the recommendations based on the findings to mitigate and reduce the payment issues in the telecommunication tower construction and infra project.

REFERENCES

Abdul Rahman, H., Berawi, M.A., Berawi, A.R., Mohamed, O., Othman, M. and Yahya, I.A. (2002). *Delay mitigation in the Malaysian construction industry*. Journal of Construction Engineering and Management, 132(2): 125–133.

Abdul Rahman, H., Takim, R., & Min, W. S. (2009). *Financial Related Causes Contributing to Project Delay*. Journal of Retail & Leisure Property. 8: pg 225–238.

Abeysekera, V. (2002) *Re-engineering payment procedures: an agenda for client fi nanced construction. Re-Engineering Construction: Enabling and Motivating Excellence*. International Conference on Re-Engineering Construction. In: Ng, S.I, Cheung K., Lam, K. and Poon, S. (eds), Hong Kong, 10 April, 79 – 85.

Allan Ashworth (2001) *Contractual Procedures in the Construction Industry*. 4th Edition. Pearson Education.

Ameer-Ali, N.A.N. (2005). *Payment in The Construction Industry – Towards Zero-Default, QS National Convention 2005,* 10-11 August 2005, Hilton Kuala Lumpur.

Ameer-Ali, N.A.N. (2006). *A Construction Industry Payment and Adjudication Act: Reducing Payment-Default and Increasing Dispute Resolution Efficiency in Construction*. Master Builders 3, pg 4-14.

Anas M. K. M. B., Rahim A. A. H., Syazwani A. R, Rozana Z. and Reza S. M. (2016) *Late Payment Practices in Malaysian Construction Industry.* Malaysian Journal of Civil Engineering 28 Special Issue (3) : 149-162(2016)

Azhan S. (2004). *The Effects of Delays in Construction Industry*. Master Degree Project Report. Universiti Teknologi Mara.

Azman, M. N. A., Dzulkalnine, N., Hamid, Z. A., Kamar, K. A. M., & Nawi, M. N. M. (2013). *Payment Scenario in the Malaysian Construction Industry Prior to*

CIPAA. Paper presented at the CIB World Building Congress 2013, Brisbane, Australia.

Bob, G. (2005) *Construction Industry Payments and Adjudication an Australian Perspective- International Forum On Construction Industry Payment Act and Adjudication*, 13&14 September 2005, Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia.

CIDB (2000) CIDB Standard Form of Contract

Clough, R.H. and Sears, G.A (1994) *Construction Contracting*. 6th Edition. New York.John Wiley and Sons Inc.

Company Act 1965

Contract Act 1950

Creswell, J (2012), *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research.* 4th Edition. Upper Saddle River, NJ: Pearson Education.

Davis Langdon and Seah Consultancy (2003) *Construction Payment Blues-Why That Domino Effect. Executive Summaries for the Practitioner*. Volume 3. Issue 3, September 2003, Singapore.

Emy Lindsay. (30th May 2012). *Construction Industry a Significant Contributor to the Nation's GDP*. The Borner Post.

Government of Malaysia (2002) *Standard Form of Design and Build / Turnkey Contract* (PWD Form DB/T)

Hamzah Abdul Rahman, Wang Chen, Faizul Azli Mohd Rahim, Nurul Safwah Mohd Yusoff, Mohd Suhaimi Mohd Danuri. (2015). *Delay and Payment Issues in Construction Projects*. University of Malaya Press.

Harian Metro (29 Oktober 2010). *31 Juta Pelanggan Telefon Bimbit.*

Haseeb M, LU X, Dyian M, and Rabbani W (2011) *"Problems of Projects and Effects of Delays in the Construction Industry."* Australian Journal of Business and Management Research 1: pg 41-50.

Hasmori M F, Ismail I and Said I (2012) *Issue of Late Payment and Non-Payment among Contractor in Malaysia*. 3rd International Conference on Business and Economic Research Proceeding, 12-13 March 2012, Golden Flower Hotel, Bandung, Indonesia.

Holt, G. D., Olomolaiye, P.O and Harris, F.C (1996). *Tendering Procedures, Contractual Arrangements and Latham-The Contractors' View*. Engineering. Construction and Architectural Management, 3(1&2):97-115.

Ir. Harban Singh K.S. (2003). *Engineering and Construction Contracts Management, Post-Commencement Practice*. Lexis nexis.

Johnston, S. (1999). *Debts and Interest in the Construction Industry: A Guide to the Late Payment of Commercial Debts (Interest) Act 1998*. Thomas Telford Limited, London.

Judi S S and Abdul Rashid R (2010) *Contractor's Right of Action for Late or Non-Payment by the Employer*. Journal of Surveying, Construction & Property 1: 65-95.

Karib, A.S, Shaffii, N and Nor, N.M (2008) *A Report on the Proposal for a Malaysian Construction Industry and Adjudication Act (CIPAA)*. Lembaga Industri Pembinaan Malaysia.

Kementerian Kerja Raya. (2012). *Pelan Dwi Tahunan, Pelan Strategik 2011 – 2012*.

KLRCA (2012). Arbitration Rules 2012. Kuala Lumpur Regional Centre for Arbitration.

Malaysia Communications and Multimedia Act 1998

Malaysian Communications and Multimedia Commission. (2013). *Communications and Multimedia: Pocket Book of Statistics,* Q1 2013

Mohamad, M. I., Nekooie, M. A., & Kamaruddin, N. C. (2012). *The Adequacy of Contractual Provisions in Managing Construction Failure in Malaysia*. European Journal of Business Management. 4: pg 22–38.

Mohamed Nor Azhari Azman, Natasha Dzulkainine, Zuhairi Abd Hamid, Khuan Wai Bing (2014). *Payment Issue in Malaysian Construction Industry: Contractors' Perspective.* Penerbit UTM Press.

Mohd Khuzairi Ismail. (11 April 2008). *Industri Telekomunikasi Kian Penting*. Utusan Malaysia

Muhammad Ehsan Che Munaaim, M.S. Mohd Danuri, H. Abdul Rahman (2013) *Is Late or Non-Payment a Significant Problem to Malaysian Contractors?* Center for Project and Facilities Management, Faculty of the Built Environment, University of Malaya.

Nesan, L.J (1997). *A Generic Model for Effective Implementation of Empowerment in Construction Contractor Organisation.* PhD Thesis. University of Wolverhampton.

Nik Mohd Dhiyafullah Nik Din and Zulhabri Ismail. (2014). *Construction Industry Payment and Adjudication Act (CIPAA) Remedying Payment Issue: CIDB G7 Contractor's Perspective*. Universiti Teknologi mara (UiTM).

Odeyinka, H. A., & Kaka, A. (2005). *An Evaluation of Contractor's Satisfaction with Payment Terms Influencing Construction Cash Flow*. Journal of Financial Management of Property and Construction. 10: pg 171–180.

PAM Contract (2006) (Without Quantities)

Quantitative and Qualitative Research. 4th Edition. Upper Saddle River, NJ:

Rahman, H. A., and Ye, K. M. (2010). *Risk of Late Payment in Malaysian Construction Industry*. World Academy of science, engineering and technology 41.

Reeves, K. (2003). *Pay Up*. JUBM Construction News and Views (Vol. 1/2003)

Suhaini, A. (2005) *No Joy for the Small Builders.* The Star Online, 8th May 2005.

Supardi, A, & Adnan, H. (2011). *Security of Payment in Malaysian Construction Industry: Sub-contract 'Payment upon Certification' Cases*. Paper presented at the International Conference on Construction and Project Management, Singapore.

The Entrusty Group (2008) *Must the Contractor Submit His Interim Payment Claims before the Superintending Officer Certifies for payment?* Master Builders 1st Quarter.

Tin Mg Oo. (20 October 2015). *MTCA Threatens to Sue Tower Contractors*. Myanmar Business Today. Vol. 3 Issue 41.